

26 October 1963

MEMORANDUM FOR THE RECORD

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1. Yesterday afternoon, after a meeting on another subject, General Krulak stopped over and stated that he wanted to add two things which he should have covered at the briefing he and General Quinn gave us on Thursday, 24 October, regarding the disestablishment of General Lansdale's office and the manner in which the Department of Defense would henceforth handle the CIA requirements [redacted] paramilitary.

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2. General Krulak said that he had failed to mention and he should have, the fact that [redacted] was of tremendous assistance to him in all of his activities and he was most anxious to continue to use [redacted] in this regard. He felt that we should know that [redacted] was a great asset in being a source to which Krulak could go for his requirements as to CIA plans and activities.

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3. General Krulak then stated that he did not make clear his dual position. While he is the DOD representative for CIA matters connected with paramilitary activities as explained at the meeting, he is also the personal representative and advisor to Secretary Gilpatric and General Taylor in their activities for the Special Group (5412). In this latter connection, he is obligated to advise them in as much detail as possible of all activities of the 5412 Group and as it concerns our interests of those paramilitary and other covert activities of the CIA. He wanted me to understand this because he seemed to have the impression that at our meeting [redacted] people did not seem disposed to provide the detailed information which he (General Krulak) felt he would need in briefing Gilpatric and Taylor.

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NRO review(s) completed.

4. I am not sure just how all this fits in but the way I read the tea leaves it would appear that General Krulak and his staff are going to become more and more interested in greater and greater details about any paramilitary or counterinsurgency operations generated by the CIA when they require Special Group approval or logistic support from DOD.
5. Please keep the foregoing in mind in your future arrangements.

1s/ M.S.C.

Marshall S. Carter  
Lieutenant General, USA  
Deputy Director

MSC:Yue  
cc: Mr. Kirkpatrick  
Mr. Helms  
Mr. Bross  
Mr. Baird  
[redacted]  
O/DCI (Mr. Elder)  
ER  
BDCI files

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22 Oct 63

MEMORANDUM FOR: Director, National Reconnaissance Office  
SUBJECT: CORONA Improvement Program  
REFERENCE: DNRO Memorandum to DCI of 11 September 1963  
DNRO Memorandum to DCI of 4 October 1963

1. The Purcell Panel recommended that rather than proceeding with a new camera system that we improve our only satellite search system, CORONA, so as to yield its peak resolution performance all the time. This report suggested a number of technical improvements in the basic CORONA system over and above those incorporated in 9056 titanium invar drum which the Panel felt would reduce the spread in the resolution distribution curve.

2. It is my understanding that General Greer's people were instructed by the NRO to implement this recommendation. With the contractors involved, General Greer developed a list of sub system improvements which were represented as providing a technical solution to the wide distribution of resolution; Both in briefings to General Carter and his staff and in your memorandum to me of 11 September 1963.

3. In August, I directed the CIA/DD/S&T people to play an active, constructive role in implementing the Purcell Panel

report. Because of apparent misunderstanding of the NRO staff and on the West Coast they were forced to conduct an independent and somewhat slower analysis of CORONA resolution problem. In retrospect it seems most fortunate that this parallel effort was created since they addressed themselves first to analyzing the basic sources of resolution degradation and then to measuring the actual distribution of resolution in film from CORONA missions. As I understand the matter, the actual distribution is much broader than anyone had imagined including the Purcell Panel.

4. This spread apparently cannot be accounted for by analysis of any of the error sources to which General Greer's improvement program was directed, and the CORONA Configuration Control Board rejected this program on 20 September. As soon as the results of this study began to emerge I directed that they be made available to you and your staff in a most preliminary form. This took place on 17 September. The results of this study have also subsequently been briefed individually to each of the members of the Purcell Panel who unanimously concur in its conclusions.

5. Under the circumstances I heartily endorse your decision to cancel or withhold much of the CORONA improvement program proposed by General Greer's organization. Some of the

proposed actions are desirable for other reasons and I leave it to you to balance the reliability danger of subsystem innovations of the increased performance potential. However, I want to be quite clear that we do not confuse the decision process by considering that the items presented in your 4 October memorandum will alter the resolution problem in any measurable way. I am convinced by what I have heard and read on this problem in the last few months that one must understand this problem thoroughly before one can cure it.

6. For this reason I was glad to note your enthusiasm for proceeding with a "specific detailed quantitative analysis of a recent good quality CORONA mission with the intent of assessing quantitatively the separate contributions of various system elements and atmospheric [redacted] conditions". It was my understanding that Dr. Wheelon proposed that just such a program be carried out in DD/S&T at the time of the original presentation (17 September) to you of the NRO staff. This organization was estimated to cost approximately [redacted] and [redacted] was to involve continuous participation by a small group of senior technical people from ITEK, Lockheed and Eastman Kodak. This working party was to be managed by CIA staff personnel from the DD/S&T and carried out at NPIC where the essential data base is exploited and stored.

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7. It is my desire that this effort be authorized and vigorously supported by the NRO. Its assignment to CIA is important in my mind because these people have already demonstrated a capability for doing original analyses of this type and because they are not harnessed to a satellite launch schedule. Of course it is important that technically qualified members of your staff play an active role in this effort and I would hope one or two officers could be made available.

8. This leads me to another point that has been very much on my mind lately. There are a number of distinct applications of satellite reconnaissance for intelligence purposes: (a) Search, (b) technical intelligence, (c) geodesy and (4) indications. It seems to me that much of the effort and imagination of NRO in the last few ~~years~~ years has been devoted to the technical intelligence on high resolution spotting problem; viz., [redacted] LANYARD, [redacted] etc. At the same time we seem to have developed no attractive ideas for a successor to CORONA, which continues to provide our only national search capability.

9. I have, therefore, directed the CIA people to explore the needs and possibility of a second generation search system.

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They are to work closely with the consumers here at CIA and elsewhere in the community and are to work closely with the photographic exploitation people at NPIC taking special recognition of the new possibilities for photo interpretation, so as to come up with a specific proposal for a new satellite system. However, it appears that one cannot provide such a solution until the results of the CORONA resolution working party are thoroughly understood. The CIA people maintain that the limit to which we can push the present system and the ways one can circumvent such limits by working in other parts of the electromagnetic spectrum need to be established first and I am inclined to agree. This consideration does attach double weight to the CORONA working party effort both as a basis for tightening up the present system and for designing its successor. Naturally I attach the greatest importance to this effort and trust you will support this enterprise with all the resources of your office.

DCI

cc: Gilpatrick

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THE DIRECTOR OF CENTRAL INTELLIGENCE

WASHINGTON 25, D.C.

**MEMORANDUM FOR:** Director, National Reconnaissance Office  
**SUBJECT** : CORONA Improvement Program  
**REFERENCE** : DNRO Memorandum to DCI of 11 September 1963  
DNRO Memorandum to DCI of 4 October 1963

Confirming my discussion with Secretary Gilpatric, Dr. Fubini, and you on 23 October, the following clarifies the references:

1. The Purcell Panel recommended that rather than proceeding with a new camera system, we improve our only satellite search system, CORONA, so as to yield its peak resolution performance all the time. This report suggested a number of technical improvements in the basic CORONA system over and above those incorporated in Mission 9056 (i. e., titanium/invar drum, etc.) which the Panel felt would reduce the spread in the resolution distribution curve.
2. It is my understanding that the Program A people were instructed by the NRO to implement this recommendation. With the contractors they developed a list of subsystem improvements which were to provide a technical solution to the wide distribution of resolutions.
3. In August I had directed the CIA/DD/S&T people to play an active role in implementing the Purcell Panel report. Because of an apparent misunderstanding on the part of the NRO Staff of the nature and purpose of this effort, CIA participation in the Program A effort was minimal and only on the West Coast. The CIA/DD/S&T therefore conducted an independent and somewhat slower analysis of the CORONA resolution problem. In retrospect, it seems most fortunate that this parallel effort was created since it resulted first in an analysis of the basic sources of resolution degradation and then in measurements of

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the actual distribution of resolution in film from CORONA missions. As I understand the matter, the actual distribution is much broader than anyone had imagined, including the Purcell Panel, and apparently cannot be accounted for by analysis of any of the error sources to which the Program A improvement program was directed. As soon as the results of this CIA study began to emerge, I directed that they be made available to you and your staff in a most preliminary form. This took place on 17 September. The results of this study have also subsequently been briefed individually to the members of the Purcell Panel, who completely concur in its conclusions.

4. Under the circumstances, I heartily endorse your decision to cancel or withhold much of the CORONA improvement program proposed by the Program A organization. Some of the proposed actions are desirable for other reasons and I leave it to you to balance the reliability danger of subsystem innovations against the increased performance potential. However, I want to be quite clear that I do not believe that the items presented in your 4 October memorandum will improve the CORONA resolution problem in any measurable way. I am convinced by what I have heard and read on this problem in the last few months that one must understand this problem thoroughly before one can cure it.

5. For this reason I was glad to note your enthusiasm for proceeding with a "specific detailed quantitative analysis of a recent good quality CORONA mission with the intent of assessing quantitatively the separate contributions of various system elements and atmospheric seeing conditions." It was my understanding that the CIA proposed that just such a program be carried out in DD/S&T at the time of the original presentation (17 September) to you and the NRO Staff. This program was estimated to cost approximately [redacted] and was to involve continuous participation by a small group of senior technical people from appropriate contractors. This working party was to be managed by CIA staff personnel from the DD/S&T and carried out at NPIC where the essential data base is exploited and stored.

6. I am happy that this effort was agreed on 23 October at our meeting and that it will be vigorously supported by the NRO Staff. Its

assignment to CIA is important in my mind because these people have already demonstrated a capability for doing penetrating analyses of this type. It is of course my understanding that technically qualified members of the NRO Staff will play an active role in this effort and I would hope that one or two Air Force officers can be made available to assist.

7. This leads me to another point that has been very much on my mind lately. There are a number of distinct applications of satellite reconnaissance for intelligence purposes: (a) search, (b) technical intelligence, (c) geodesy, and (d) indications. It seems to me that much of the effort and imagination of NRO in the last few years has been devoted to the technical intelligence of high resolution spotting problem; viz., [REDACTED] LANYARD, [REDACTED] etc. At the same time we seem to have developed no attractive ideas for a successor to CORONA, which continues to provide our only search capability.

8. It was logical, therefore, at our meeting to direct CIA to explore the needs and possibility of a second generation search system. Qualified people from CIA will work closely with the consumers and with the photographic exploitation people at NPIC, taking special recognition of the new possibilities for photo interpretation, so as to come up with a specific proposal for a new satellite system. However, it appears that one cannot provide such a solution until the results of the CORONA resolution working party are thoroughly understood. The CIA people maintain that the limit to which we can push the present system and the ways in which one can circumvent such limits by working in other parts of the electromagnetic spectrum need to be established first and I am inclined to agree. This consideration does attach double weight to the CORONA working party effort both as a basis for tightening up the present system and for designing its successor.

9. I have directed Dr. Wheelon to press forward urgently on this analysis, to work closely with you on it, and to keep me and Mr. Gilpatrick advised of progress.

John A. McCone  
Director

cc: The Honorable Roswell L. Gilpatrick  
Deputy Secretary of Defense

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~~CENTRAL INTELLIGENCE AGENCY~~

WASHINGTON 25, D. C.

~~OFFICE OF THE DIRECTOR~~

DCI

letterhead

(No agency affiliation)

MEMORANDUM FOR: Director, National Reconnaissance Office

SUBJECT: CORONA Improvement Program

REFERENCE: DNRO Memorandum to DCI of 11 September 1963  
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